

APPENDIX S

Adjusted Verification Output File Printout

TEXAS WATER COMMISSION WATER QUALITY STREAM MODEL
QUAL-TX VERSION 3.3 UPDATED DECEMBER 3, 1990

01/23/04
13:43:31

\$\$\$ DATA TYPE 1 (TITLES AND CONTROL CARDS) \$\$\$

CARD TYPE	CONTROL TITLES
CNTROL01	QUAL-TX simulation for Upper Bayou Des Allemands, LA
CNTROL02	Adjusted Verification
CNTROL03	YES
CNTROL04	NO
CNTROL05	CAPS
CNTROL06	INTE
CNTROL07	FINA
CNTROL08	LOAD
CNTROL09	YES
CNTROL10	METR
	OXYG
	OVER
ENDATA01	

\$\$\$ DATA TYPE 2 (MODEL OPTIONS) \$\$\$

CARD TYPE	MODEL OPTION
MODOPT01	NO
MODOPT02	TEMP
MODOPT03	NO
MODOPT04	SALI
MODOPT04	YES
MODOPT04	CONSERVATIVE MATERIAL I = cond
MODOPT05	NO
MODOPT05	CONS
MODOPT05	DISS
MODOPT06	YES
MODOPT06	BIOC
MODOPT07	YES
MODOPT07	NITR
MODOPT08	YES
MODOPT08	PHOS
MODOPT09	YES
MODOPT09	CHLO
MODOPT10	NO
MODOPT10	MACR
MODOPT11	NO
MODOPT11	COLI
MODOPT12	NO
MODOPT12	NONC
ENDATA02	

\$\$\$ DATA TYPE 3 (PROGRAM CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
PROGRAM PROGRAM	MAXIMUM ITERATION LIMIT	= 1500.00000
	KL MINIMUM	= 0.99000

PROGRAM
ENDATA03

TOTAL DAILY RADIATION = 416.00000

\$\$\$ DATA TYPE 4 (TEMPERATURE CORRECTION CONSTANTS FOR RATE COEFFICIENTS) \$\$\$

CARD TYPE RATE CODE THETA VALUE

BSOD BENTHAL 1.06500
THETA NH3 DECA 1.07000
ENDATA04

\$\$\$ CONSTANTS TYPE 5 (TEMPERATURE DATA) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
ENDATA05		

\$\$\$ DATA TYPE 6 (ALGAE CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
LIGHT	LIGHT SATURATION CONSTANT	= 10.00000
ENDATA06		

\$\$\$ DATA TYPE 7 (MACROPHYTE CONSTANTS) \$\$\$

CARD TYPE	DESCRIPTION OF CONSTANT	VALUE
ENDATA07		

\$\$\$ DATA TYPE 8 (REACH IDENTIFICATION DATA) \$\$\$

CARD TYPE	REACH	ID	NAME	BEGIN REACH KM	END REACH KM	ELEM LENGTH KM	REACH LENGTH KM	ELEMS PER RCH	BEGIN ELEM NUM	END ELEM NUM
REACH ID	1	DA	Bayou Des Allemands	33.00 TO 31.75	31.75 TO 31.25	0.1250	1.25	10	1	10
REACH ID	2	DA	Bayou Des Allemands	31.75 TO 31.25	31.25 TO 0.1000	0.50	0.50	5	11	15
REACH ID	3	DA	Bayou Des Allemands	31.25 TO 28.75	28.75 TO 0.1000	2.50	2.50	25	16	40
REACH ID	4	DA	Bayou Des Allemands	28.75 TO 28.25	28.25 TO 0.1000	0.50	0.50	5	41	45
REACH ID	5	DA	Bayou Des Allemands	28.25 TO 27.25	27.25 TO 0.1000	1.00	1.00	10	46	55

```

REACH ID   6 DA Bayou Des Allemands
REACH ID   7 DA Bayou Des Allemands
REACH ID   8 DA Bayou Des Allemands
REACH ID   9 DA Bayou Des Allemands
REACH ID  10 DA Bayou Des Allemands
REACH ID  11 DA Bayou Des Allemands
ENDATA08

```

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	VELOCITY "A"	VELOCITY "B"	VELOCITY "C"	DEPTH "E"	DEPTH "D"	DEPTH "C"	VELOCITY "B"	VELOCITY "A"	VELOCITY "C"	MANNINGS "N"
HYDR-1	1	DA	0.00045500	1.000	1.520	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HYDR-1	2	DA	0.00055300	1.000	1.520	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HYDR-1	3	DA	0.00065000	1.000	1.840	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HYDR-1	4	DA	0.00098500	1.000	2.60	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HYDR-1	5	DA	0.00178000	1.000	2.160	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HYDR-1	6	DA	0.00147000	1.000	2.620	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HYDR-1	7	DA	0.00125000	1.000	3.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HYDR-1	8	DA	0.00125000	1.000	3.080	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HYDR-1	9	DA	0.00138000	1.000	2.790	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HYDR-1	10	DA	0.00154000	1.000	2.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000
HYDR-1	11	DA	0.00368000	1.000	2.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"	DISPERSION "E"
HYDR-2	1	DA	0.00	4.500	0.000	0.000	0.000	0.000
HYDR-2	2	DA	0.00	4.500	0.000	0.000	0.000	0.000
HYDR-2	3	DA	0.00	4.500	0.000	0.000	0.000	0.000
HYDR-2	4	DA	0.00	4.500	0.000	0.000	0.000	0.000
HYDR-2	5	DA	0.00	4.500	0.000	0.000	0.000	0.000
HYDR-2	6	DA	0.00	4.500	0.000	0.000	0.000	0.000
HYDR-2	7	DA	0.00	4.500	0.000	0.000	0.000	0.000
HYDR-2	8	DA	0.00	4.500	0.000	0.000	0.000	0.000
HYDR-2	9	DA	0.00	4.500	0.000	0.000	0.000	0.000
HYDR-2	10	DA	0.00	4.500	0.000	0.000	0.000	0.000
HYDR-2	11	DA	0.00	4.500	0.000	0.000	0.000	0.000

ENDATA10

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO
INITIAL	1	DA	27.70	0.11	6.66	0.19	0.05	0.06	44.00	0.00
INITIAL	2	DA	27.70	0.11	6.66	0.19	0.05	0.06	44.00	0.00
INITIAL	3	DA	28.60	0.12	7.57	0.19	0.05	0.06	44.00	0.00
INITIAL	4	DA	29.50	0.13	8.47	0.19	0.05	0.06	44.00	0.00
INITIAL	5	DA	28.90	0.12	7.41	0.19	0.05	0.06	44.00	0.00

-2004

0.25_bda.out
0.25

REACH	ID	6	DA	Bayou Des Allemands	27.25	T0	26.25	0.1000	1.00	56	65
REACH	ID	7	DA	Bayou Des Allemands	26.25	T0	25.25	0.1000	1.00	66	75
REACH	ID	8	DA	Bayou Des Allemands	25.25	T0	24.25	0.1000	1.00	76	85
REACH	ID	9	DA	Bayou Des Allemands	24.25	T0	23.25	0.1000	1.00	86	95
REACH	ID	10	DA	Bayou Des Allemands	23.25	T0	22.25	0.1000	1.00	96	105
REACH	ID	11	DA	Bayou Des Allemands	22.25	T0	21.55	0.1000	0.70	7	106

\$\$\$ DATA TYPE 9 (ADVECTIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	VELOCITY "A"	VELOCITY "B"	VELOCITY "C"	DEPTH "C"	DEPTH "D"	DEPTH "E"	MANNINGS "N"
HYDR-1	1	DA	0.00045500	1.000	1.520	0.000	0.000	0.000	0.000
HYDR-1	2	DA	0.00055300	1.000	1.520	0.000	0.000	0.000	0.000
HYDR-1	3	DA	0.00065000	1.000	1.860	0.000	0.000	0.000	0.000
HYDR-1	4	DA	0.00098500	1.000	2.160	0.000	0.000	0.000	0.000
HYDR-1	5	DA	0.00178000	1.000	2.160	0.000	0.000	0.000	0.000
HYDR-1	6	DA	0.00147000	1.000	2.620	0.000	0.000	0.000	0.000
HYDR-1	7	DA	0.00125000	1.000	3.080	0.000	0.000	0.000	0.000
HYDR-1	8	DA	0.00125000	1.000	3.080	0.000	0.000	0.000	0.000
HYDR-1	9	DA	0.00138000	1.000	2.790	0.000	0.000	0.000	0.000
HYDR-1	10	DA	0.00154000	1.000	2.500	0.000	0.000	0.000	0.000
HYDR-1	11	DA	0.00368000	1.000	2.500	0.000	0.000	0.000	0.000

\$\$\$ DATA TYPE 10 (DISPERSIVE HYDRAULIC COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	TIDAL RANGE	DISPERSION "A"	DISPERSION "B"	DISPERSION "C"	DISPERSION "D"
HYDR-2	1	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	2	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	3	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	4	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	5	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	6	DA	0.00	4.500	0.000	0.000	0.000
HYDR-2	7	DA	0.00	4.500	0.000	0.000	0.000

```

COEF-2      7   DA    0.02    0.00    1.00    0.10    0.20    0.02    0.00
COEF-2      8   DA    0.02    0.00    1.00    0.10    0.20    0.01    0.00
COEF-2      9   DA    0.02    0.00    1.00    0.10    0.22    0.00    0.00
COEF-2     10   DA    0.02    0.00    1.00    0.10    0.24    0.00    0.00
COEF-2     11   DA    0.02    0.00    1.00    0.10    0.26    0.00    0.00
ENDATA13

```

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP
COEF-3	1	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	2	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	3	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	4	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	5	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	6	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	7	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	8	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	9	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	10	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	11	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD
ENDATA15						

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-1	CM-11	INFLOW/DIST
ENDATA16									

\$\$\$ DATA TYPE 17 (INCREMENTAL DATA FOR DO, BOD, AND NITROGEN) \$\$\$

\$\$\$ DATA TYPE 11 (INITIAL CONDITIONS) \$\$\$

CARD TYPE	REACH	ID	TEMP	SALIN	DO	NH3	NO3+2	PHOS	CHL A	MACRO

ENDATA17

\$\$\$ DATA TYPE 18 (INCREMENTAL DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	PHOS	CHL A	COLI	NCM
ENDATA18						

(2004)

COEF-2	7	DA	0.02	0.00	1.00	0.10	0.20	0.02	0.00
COEF-2	8	DA	0.02	0.00	1.00	0.10	0.20	0.01	0.00
COEF-2	9	DA	0.02	0.00	1.00	0.10	0.22	0.00	0.00
COEF-2	10	DA	0.02	0.00	1.00	0.10	0.24	0.00	0.00
COEF-2	11	DA	0.02	0.00	1.00	0.10	0.26	0.00	0.00
ENDATA13									

) _bda.out

\$\$\$ DATA TYPE 14 (ALGAE AND MACROPHYTE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	SECCHI DEPTH	ALGAE: CHL A	ALGAE SETT	ALG CONV TO SOD	ALGAE GROW	ALGAE RESP	MACRO GROW	MACRO RESP
COEF-3	1	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	2	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	3	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	4	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	5	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	6	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	7	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	8	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	9	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	10	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00
COEF-3	11	DA	1.00	0.060	0.50	0.08	1.62	0.10	0.00	0.00

\$\$\$ DATA TYPE 15 (COLIFORM AND NONCONSERVATIVE COEFFICIENTS) \$\$\$

CARD TYPE	REACH	ID	COLIFORM DIE-OFF	NCM DECAY	NCM SETT	NCM CONV TO SOD
ENDATA15						

\$\$\$ DATA TYPE 16 (INCREMENTAL DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	REACH	ID	OUTFLOW	INFLOW	TEMP	SALIN	CM-II	CM-I	INFLOW/DIST
ENDATA11									

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS	CHL A	COLI	NCM
HWTTR-3	1	Lake Des Allemands	0.07	49.00	0.00	0.00
ENDATA22						

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	NAME
ENDATA23			

\$\$\$ DATA TYPE 24 (WASTELOAD DATA FOR FLOW, TEMPERATURE, SALINITY, AND CONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	FLOW	TEMP	SAL	CM-1	CM-11
WSTLD-1	8	Providence Canal	9.96000	26.300	0.000	256.000	0.000
WSTLD-1	112	Collier Fisheries	0.00044	30.800	0.000	503.000	0.000
ENDATA24							

\$\$\$ DATA TYPE 25 (WASTELOAD DATA FOR DO, BOD, AND NITROGEN) \$\$\$

CARD TYPE	ELEMENT	NAME	DO	BOD	% BOD RMVL	ORG-N	NH3	% NITRIF	% NO3+2
WSTLD-2	8	Providence Canal	0.24	5.30	0.00	1.24	0.16	0.00	0.05
WSTLD-2	112	Collier Fisheries	2.00	60.00	0.00	5.00	10.00	0.00	10.00
ENDATA25									

\$\$\$ DATA TYPE 26 (WASTELOAD DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS	CHL A	COLI	NCM
WSTLD-3	8	Providence Canal	0.07	49.00	0.00	0.00
WSTLD-3	112	Collier Fisheries	5.00	0.00	0.00	0.00
ENDATA26						

CARD TYPE	CONSTITUENT	CONCENTRATION
LOWER BC	TEMPERATURE	= 29.400 DEG C
LOWER BC	SALINITY	= 0.111 PPT
LOWER BC	CONSERVATIVE MATERIAL I	= 200.000 umhos
LOWER BC	CONSERVATIVE MATERIAL II	= 0.000
LOWER BC	DISSOLVED OXYGEN	= 5.890 MG/L
LOWER BC	BIOCHEMICAL OXYGEN DEMAND	= 3.690 MG/L
LOWER BC	ORGANIC NITROGEN	= 1.250 MG/L
LOWER BC	AMMONIA NITROGEN	= 0.250 MG/L
LOWER BC	NITRATE + NITRITE	= 0.050 MG/L
LOWER BC	PHOSPHOROUS	= 0.089 MG/L
LOWER BC	CHLOROPHYLL A	= 40.000 ug/L
LOWER BC	COLIFORM	= 0.000 #/100 ML
LOWER BC	NONCONSERVATIVE MATERIAL	= 0.000
ENDATA27		

\$\$\$ DATA TYPE 28 (FLOW AUGMENTATION DATA) \$\$\$

CARD TYPE	REACH	AVAIL HDWS	TARGET	ORDER OF AVAIL SOURCES
ENDATA28				

\$\$\$ DATA TYPE 29 (SENSITIVITY ANALYSIS DATA) \$\$\$

CARD TYPE	PARAMETER	COL 1	COL 2	COL 3	COL 4	COL 5	COL 6	COL 7	COL 8
SENSITIV	NH3 SRCE	-50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SENSITIV	PO4 SRCE	-50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
ENDATA29									

2004

bda.out

\$\$\$ DATA TYPE 22 (HEADWATER DATA FOR PHOSPHORUS, CHLOROPHYLL, COLIFORM, AND NONCONSERVATIVES) \$\$\$

CARD TYPE	ELEMENT	NAME	PHOS	CHL A	COLI	NCM
HDWTR-3	1	Lake Des Allemands	0.07	49.00	0.00	0.00
ENDATA22						

\$\$\$ DATA TYPE 23 (JUNCTION DATA) \$\$\$

CARD TYPE	JUNCTION ELEMENT	UPSTRM ELEMENT	NAME
ENDATA23			

..... TRIDIAGONAL MATRIX TERMS INITIALIZED
 PHOTOSYNTHETIC RATES CONVERGENT IN 6 ITERATIONS
 OXYGEN DEPENDENT RATES CONVERGENT IN 1 ITERATIONS
 CONSTITUENT CALCULATIONS COMPLETED

1 FINAL REPORT Lake Des Allemands
 REACH NO. 1 Bayou Des Allemands

QUAL-TX simulation for Upper Bayou Des Allemands, LA
 Adjusted Verification

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALIN PPT	CIM *	CM-II *	DO MG/L	BOD MG/L	ORGN MG/L	NH3 MG/L	N3+2 MG/L	PHOS MG/L	CHL A ug/l	COLI #/100ML	NCM *
1 HDWTR 96.9600		29.10	0.00	200.0	0.0	9.94	5.30	1.24	0.16	0.05	0.07	49.0	0.	0.00	
8 WSTLD 9.9600		26.30	0.00	256.0	0.0	0.24	5.30	1.24	0.16	0.05	0.07	49.0	0.	0.00	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	CU M	SQ M	AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
1 33.00	32.88	96.9600	0.0	0.044	0.03	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.044		
2 32.88	32.75	96.9600	0.0	0.044	0.03	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.044		
3 32.75	32.63	96.9600	0.0	0.044	0.03	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.044		
4 32.63	32.50	96.9600	0.0	0.044	0.03	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.044		
5 32.50	32.38	96.9600	0.0	0.044	0.03	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.044		
6 32.38	32.25	96.9600	0.0	0.044	0.03	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.044		
7 32.25	32.13	96.9600	0.0	0.044	0.03	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.044		
8 32.13	32.00	106.9200	9.3	0.049	0.03	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.049		
9 32.00	31.88	106.9200	9.3	0.049	0.03	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.049		
10 31.88	31.75	106.9200	9.3	0.049	0.03	1.52	1445.9	274725.	180740.3	2197.8	0.	0.000	4.500	0.049		
TOT			0.32			2747253.			180740.3							

{ ****, 2004

coeff_bda.out

8 of 32

CARD TYPE	CONSTITUENT	CONCENTRATION
LOWER BC	TEMPERATURE	= 29.400 DEG C
LOWER BC	SALINITY	= 0.111 PPT
LOWER BC	CONSERVATIVE MATERIAL I	= 200.000 umhos
LOWER BC	CONSERVATIVE MATERIAL II	= 0.000
LOWER BC	DISSOLVED OXYGEN	= 5.890 MG/L
LOWER BC	BIOCHEMICAL OXYGEN DEMAND	= 3.690 MG/L
LOWER BC	ORGANIC NITROGEN	= 1.250 MG/L
LOWER BC	AMMONIA NITROGEN	= 0.250 MG/L

1	32.875	7.86	0.75	0.20	0.00	0.00	4.60	0.03	0.00	0.17	0.07	0.00	0.05	0.81	0.00	0.00	0.00
2	32.750	7.86	0.75	0.20	0.00	0.00	4.59	0.03	0.00	0.17	0.07	0.00	0.05	0.81	0.00	0.00	0.00
3	32.625	7.86	0.75	0.20	0.00	0.00	4.57	0.03	0.00	0.17	0.07	0.00	0.05	0.81	0.00	0.00	0.00
4	32.500	7.86	0.75	0.20	0.00	0.00	4.56	0.03	0.00	0.17	0.07	0.00	0.05	0.81	0.00	0.00	0.00
5	32.375	7.86	0.75	0.20	0.00	0.00	4.55	0.03	0.00	0.17	0.07	0.00	0.05	0.81	0.00	0.00	0.00
6	32.250	7.86	0.75	0.20	0.00	0.00	4.54	0.03	0.00	0.17	0.07	0.00	0.05	0.82	0.00	0.00	0.00
7	32.125	7.86	0.75	0.20	0.00	0.00	4.53	0.03	0.00	0.17	0.07	0.00	0.05	0.82	0.00	0.00	0.00
8	32.000	7.86	0.75	0.20	0.00	0.00	4.52	0.03	0.00	0.17	0.07	0.00	0.05	0.82	0.00	0.00	0.00
9	31.875	7.86	0.75	0.20	0.00	0.00	4.51	0.03	0.00	0.17	0.07	0.00	0.05	0.82	0.00	0.00	0.00
10	31.750	7.86	0.75	0.20	0.00	0.00	4.50	0.03	0.00	0.17	0.07	0.00	0.05	0.82	0.00	0.00	0.00

20 DEG C RATE

AVG 20 DEG C RATE

0.65 0.14 0.00 0.00 1.40 0.02 0.00 0.10 0.04 0.00 0.04

* G/SQ M/D

** MG/L/DAY

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A ug/l	MACRO **	COLI #/100ML	NCM *
1	32.875	27.70	0.1	200.0	0.0	9.66	5.29	5.29	1.24	0.16	0.05	1.45	0.07	48.5	0.0	0.	0.00
2	32.750	27.70	0.1	200.0	0.0	9.51	5.28	5.28	1.24	0.16	0.05	1.45	0.07	48.2	0.0	0.	0.00
3	32.625	27.70	0.1	200.1	0.0	9.36	5.28	5.28	1.24	0.16	0.05	1.45	0.07	47.9	0.0	0.	0.00
4	32.500	27.70	0.1	200.2	0.0	9.20	5.27	5.27	1.23	0.16	0.05	1.45	0.07	47.6	0.0	0.	0.00
5	32.375	27.70	0.1	200.5	0.0	9.03	5.27	5.27	1.23	0.16	0.05	1.45	0.07	47.4	0.0	0.	0.00
6	32.250	27.70	0.1	201.1	0.0	8.82	5.26	5.26	1.23	0.16	0.05	1.45	0.07	47.1	0.0	0.	0.00
7	32.125	27.70	0.1	202.3	0.0	8.51	5.26	5.26	1.23	0.17	0.05	1.45	0.07	46.9	0.0	0.	0.00
8	32.000	27.70	0.1	205.2	0.0	7.97	5.26	5.26	1.23	0.17	0.05	1.45	0.08	46.8	0.0	0.	0.00
9	31.875	27.70	0.1	205.2	0.0	7.87	5.26	5.26	1.23	0.17	0.05	1.45	0.08	46.6	0.0	0.	0.00
10	31.750	27.70	0.1	205.2	0.0	7.79	5.26	5.26	1.23	0.17	0.05	1.45	0.08	46.4	0.0	0.	0.00

* CM-I = cond umhos
** G/CU M

CM-II = NCM =

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST	SECCHI DEPTH	NITR PREF	ALG SETT LIT N	ALG P N&P TOT	ALG 1/DA LIM LIM LIM LIM LIM	GROW 1/DA	RESP 1/DA	ALG A/P/R LIT N	ALG MAC MAC MAC MAC	MAC N&P TOT LIM LIM LIM LIM	MAC GROW 1/DA	MAC RESP 1/DA	M/P/R
1	32.875	0.60	0.24	0.39	30.41	64.50	15	0.35	0.14	1.97	0.00	0.00	0.00	0.00
2	32.750	0.60	0.24	0.39	30.41	64.50	15	0.35	0.14	1.98	0.00	0.00	0.00	0.00
3	32.625	0.60	0.24	0.39	30.42	64.50	15	0.35	0.14	1.99	0.00	0.00	0.00	0.00
4	32.500	0.60	0.24	0.39	30.42	64.51	15	0.36	0.14	2.00	0.00	0.00	0.00	0.00

* 2004

9 of 32

7	32.125	0.60	0.24	0.39	.30	.42	.65	.51	.16	0.36	0.14	2.02	.00	.00	0.00	0.00	0.00
8	32.000	0.60	0.24	0.39	.30	.42	.65	.51	.16	0.36	0.14	2.02	.00	.00	0.00	0.00	0.00
9	31.875	0.61	0.24	0.39	.30	.42	.65	.51	.16	0.36	0.14	2.03	.00	.00	0.00	0.00	0.00
10	31.750	0.61	0.24	0.39	.31	.42	.66	.51	.16	0.36	0.14	2.03	.00	.00	0.00	0.00	0.00

20 DEG C RATE

NOTE ON NITR PREF: 1.0=N03 ; 0.0=NH3

1 FINAL REPORT
REACH NO. 2
Lake Des Allemands
Bayou Des Allemands

QUAL-TX simulation for Upper Bayou Des Allemands, LA
Adjusted Verification

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALIN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	ORGN MG/L	NH3 MG/L	N03+2 MG/L	PHOS MG/L	CHL A ug/l	COLI #/100ML	NCM *	
11	UPR RCH	106.9200	27.70	0.11	205.2	0.0	7.79	5.26	5.26	1.23	0.17	0.05	0.08	46.4	0.	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
11	31.75	31.65	106.9200	9.3	0.059	0.02	1.52	1189.7	180832.	118968.3	1808.3	0.	0.000	4.500	0.059
12	31.65	31.55	106.9200	9.3	0.059	0.02	1.52	1189.7	180832.	118968.3	1808.3	0.	0.000	4.500	0.059
13	31.55	31.45	106.9200	9.3	0.059	0.02	1.52	1189.7	180832.	118968.3	1808.3	0.	0.000	4.500	0.059
14	31.45	31.35	106.9200	9.3	0.059	0.02	1.52	1189.7	180832.	118968.3	1808.3	0.	0.000	4.500	0.059
15	31.35	31.25	106.9200	9.3	0.059	0.02	1.52	1189.7	180832.	118968.3	1808.3	0.	0.000	4.500	0.059

TOT	0.059	0.42	0.10	1.52	1189.7	904159.	594841.6	1808.3
Avg								
CUM								

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	ANBOD 1/DA	FULL SOD * 1/DA	CORR SOD * 1/DA	ORGN DECAY 1/DA	ORGN SRCE 1/DA *	NH3 DECAY 1/DA *	DENIT SRCE 1/DA *	PO4 PROD 1/DA *	ALG PROD 1/DA **	MAC PROD 1/DA ***	COLI DECAY 1/DA	NCM DECAY 1/DA	NCM SETT 1/DA
11	31.650 7.84	0.75	0.20	0.00	0.00	4.86	4.86	0.03	0.00	0.17	0.07	0.00	0.04	0.83	0.00	0.00
12	31.550 7.81	0.76	0.20	0.00	0.00	4.89	4.89	0.03	0.00	0.17	0.07	0.00	0.04	0.83	0.00	0.00
13	31.450 7.79	0.76	0.20	0.00	0.00	4.92	4.92	0.03	0.00	0.17	0.07	0.00	0.04	0.84	0.00	0.00
14	31.350 7.76	0.76	0.21	0.00	0.00	4.95	4.95	0.03	0.00	0.18	0.07	0.00	0.04	0.85	0.00	0.00

20 DEG C RATE 0.14 0.00 0.00 1.60 0.02 0.00 0.10 0.04 0.00 0.04
 AVG 20 DEG C RATE 0.65 0.00 0.00 20 DEG C RATE 0.00 0.00 0.00 0.00 0.00

* G/SQ M/D ** MG/L/DAY

WATER QUALITY CONSTITUENT VALUES											
ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L
11	31.650	27.88	0.1	205.2	0.0	7.72	5.28	5.28	1.23	0.17	0.05
12	31.550	28.06	0.1	205.2	0.0	7.65	5.30	5.30	1.23	0.17	0.05
13	31.450	28.24	0.1	205.2	0.0	7.59	5.31	5.31	1.23	0.17	0.05
14	31.350	28.42	0.1	205.2	0.0	7.52	5.32	5.32	1.23	0.17	0.05
15	31.250	28.60	0.1	205.2	0.0	7.47	5.33	5.33	1.23	0.17	0.05

* CM-I = cond
umhos
** G/CU M

CM-II =
NCM =

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING SECCHI DEPTH M	NITR PREF	ALG SETT LIT N	ALG SETT LIM L	ALG N&P TOT L	GROW 1/DA	ALG RESP 1/DA	A/P/R LIT N	MAC MAC MAC	MAC N&P TOT L	MAC GROW 1/DA	MAC M/P/R
11	31.650	0.61	0.24	0.40	.31	.42	.66	.51	.16	0.37	0.14	2.04
12	31.550	0.61	0.24	0.40	.31	.42	.66	.52	.16	0.37	0.14	2.04
13	31.450	0.61	0.24	0.40	.31	.42	.66	.52	.16	0.37	0.15	2.05
14	31.350	0.61	0.24	0.40	.31	.42	.66	.52	.16	0.38	0.15	2.05
15	31.250	0.61	0.24	0.40	.31	.43	.66	.52	.16	0.38	0.15	2.06

20 DEG C RATE

0.50 1.62 0.10 0.00 0.00

NOTE ON NITR PREF: 1.0=N03 ; 0.0=NH3

¹ FINAL REPORT REACH NO. 3 Lake Des Allemands Bayou Des Allemands

***** REACH INPUTS *****

ELEM NO.	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *
16	UPR RCH	106.9200	28.60	0.12	205.2	0.0	7.47	5.33	5.33	1.23	0.17	0.05	0.08	45.6	0.

HYDRAULIC PARAMETER VALUES											
ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M
16	31.25	31.15	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
17	31.15	31.05	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
18	31.05	30.95	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
19	30.95	30.85	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
20	30.85	30.75	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
21	30.75	30.65	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
22	30.65	30.55	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
23	30.55	30.45	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
24	30.45	30.35	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
25	30.35	30.25	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
26	30.25	30.15	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
27	30.15	30.05	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
28	30.05	29.95	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
29	29.95	29.85	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
30	29.85	29.75	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
31	29.75	29.65	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
32	29.65	29.55	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
33	29.55	29.45	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
34	29.45	29.35	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
35	29.35	29.25	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
36	29.25	29.15	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
37	29.15	29.05	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
38	29.05	28.95	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
39	28.95	28.85	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
40	28.85	28.75	106.9200	9.3	0.069	0.02	1.84	836.1	153846.	83612.0	1538.5
TOT						0.42			3846155.	2090300.6	1538.5
Avg						0.069			1.84	836.1	
CUM						0.83					

BIOLOGICAL AND PHYSICAL COEFFICIENTS											
ELEM NO.	ENDING DIST	SAT D.O.	REAER	CBOD RATE	CBOD DECAY SETT 1/DA	FULL CORR SOD * 1/DA	ORGN DECAY SETT 1/DA	ORGN SRCE 1/DA	NH3 DECAY SRCE *	PO4 RATE 1/DA *	ALG PROD **
16	31.150	7.74	0.63	0.21	0.00	4.99	4.99	0.03	0.00	0.18	0.15
17	31.050	7.73	0.63	0.21	0.00	4.99	4.99	0.03	0.00	0.18	0.15
18	30.950	7.73	0.63	0.21	0.00	4.99	4.99	0.03	0.00	0.18	0.15
19	30.850	7.72	0.63	0.21	0.00	5.00	5.00	0.03	0.00	0.18	0.15
20	30.750	7.72	0.63	0.21	0.00	5.00	5.00	0.03	0.00	0.18	0.15
21	20.250	7.74	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22	0.22
TOT						0.42			3846155.	2090300.6	1538.5
Avg						0.069			1.84	836.1	
CUM						0.83					

** MG/L/DAY

WATER QUALITY CONSTITUENT VALUES																				
NO.	ELEMENT	ENDING DIST	TEMP DEG C	SALN PPT	CM- I *	CM- II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS	CHL A	MACRO	NCM	COLI	#/100ML	*
														MG/L	UG/L	UG/L	UG/L	UG/L	UG/L	UG/L
16		31.150	28.64	0.1	205.2	0.0	7.42	5.31	5.31	1.23	0.17	0.05	1.45	0.08	45.5	0.0	0.	0.	0.00	0.00
17		31.050	28.67	0.1	205.2	0.0	7.36	5.30	5.30	1.22	0.17	0.05	1.45	0.08	45.4	0.0	0.	0.	0.00	0.00
18		30.950	28.71	0.1	205.2	0.0	7.31	5.29	5.29	1.22	0.17	0.05	1.45	0.08	45.3	0.0	0.	0.	0.00	0.00
19		30.850	28.74	0.1	205.2	0.0	7.26	5.27	5.27	1.22	0.17	0.05	1.45	0.08	45.2	0.0	0.	0.	0.00	0.00
20		30.750	28.78	0.1	205.2	0.0	7.21	5.26	5.26	1.22	0.17	0.05	1.45	0.08	45.0	0.0	0.	0.	0.00	0.00
21		30.650	28.82	0.1	205.2	0.0	7.16	5.25	5.25	1.22	0.18	0.05	1.45	0.08	44.9	0.0	0.	0.	0.00	0.00
22		30.550	28.85	0.1	205.2	0.0	7.11	5.24	5.24	1.22	0.18	0.05	1.45	0.08	44.8	0.0	0.	0.	0.00	0.00
23		30.450	28.89	0.1	205.2	0.0	7.07	5.22	5.22	1.22	0.18	0.05	1.45	0.08	44.7	0.0	0.	0.	0.00	0.00
24		30.350	28.92	0.1	205.2	0.0	7.02	5.21	5.21	1.22	0.18	0.06	1.45	0.08	44.6	0.0	0.	0.	0.00	0.00
25		30.250	28.96	0.1	205.2	0.0	6.97	5.20	5.20	1.22	0.18	0.06	1.45	0.08	44.5	0.0	0.	0.	0.00	0.00
26		30.150	29.00	0.1	205.2	0.0	6.92	5.18	5.18	1.22	0.18	0.06	1.46	0.08	44.4	0.0	0.	0.	0.00	0.00
27		30.050	29.03	0.1	205.2	0.0	6.88	5.17	5.17	1.22	0.18	0.06	1.46	0.08	44.3	0.0	0.	0.	0.00	0.00
28		29.950	29.07	0.1	205.2	0.0	6.83	5.16	5.16	1.22	0.18	0.06	1.46	0.08	44.2	0.0	0.	0.	0.00	0.00
29		29.850	29.10	0.1	205.2	0.0	6.79	5.14	5.14	1.22	0.18	0.06	1.46	0.08	44.1	0.0	0.	0.	0.00	0.00
30		29.750	29.14	0.1	205.2	0.0	6.74	5.13	5.13	1.22	0.18	0.06	1.46	0.08	44.0	0.0	0.	0.	0.00	0.00
31		29.650	29.18	0.1	205.2	0.0	6.70	5.12	5.12	1.22	0.19	0.06	1.46	0.08	43.8	0.0	0.	0.	0.00	0.00
32		29.550	29.21	0.1	205.2	0.0	6.65	5.10	5.10	1.22	0.19	0.06	1.46	0.08	43.7	0.0	0.	0.	0.00	0.00
33		29.450	29.25	0.1	205.2	0.0	6.61	5.09	5.09	1.21	0.19	0.06	1.46	0.08	43.6	0.0	0.	0.	0.00	0.00
34		29.350	29.28	0.1	205.2	0.0	6.57	5.08	5.08	1.21	0.19	0.06	1.46	0.08	43.5	0.0	0.	0.	0.00	0.00
35		29.250	29.32	0.1	205.2	0.0	6.53	5.07	5.07	1.21	0.19	0.06	1.46	0.08	43.4	0.0	0.	0.	0.00	0.00

200%

20

36	29.150	29.36	0.1	205.2	0.0	6.48	5.05	5.05	1.21	0.19	0.06	1.46	0.08	43.3	0.0	0.	0.00
37	29.050	29.39	0.1	205.2	0.0	6.44	5.04	5.04	1.21	0.19	0.06	1.46	0.08	43.2	0.0	0.	0.00
38	28.950	29.43	0.1	205.2	0.0	6.40	5.03	5.03	1.21	0.19	0.06	1.46	0.08	43.1	0.0	0.	0.00
39	28.850	29.46	0.1	205.2	0.0	6.36	5.02	5.02	1.21	0.19	0.06	1.46	0.08	43.1	0.0	0.	0.00
40	28.750	29.50	0.1	205.2	0.0	6.33	5.01	5.01	1.21	0.19	0.06	1.46	0.08	43.0	0.0	0.	0.00

* CM-I = cond
** G/CU M
unithos

CM-II =
NCM =

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST	SECCHI DEPTH	NITR PREF	ALG SETT	ALG LIT	ALG N	ALG P	ALG N&P	ALG TOT	ALG GROW	ALG RESP	A/P/R RATIO	MAC LIT	MAC N	MAC P	MAC N&P	MAC TOT	MAC GROW	MAC RESP	M/P/R RATIO
													1/DA	LIM	LIM	LIM	LIM	1/DA	LIM	1/DA
16	31.150	0.61	0.24	0.33	-26	.43	.66	.52	.14	0.33	0.15	1.75	.00	.00	.00	.00	0.00	0.00	0.00	
17	31.050	0.61	0.24	0.33	-26	.43	.66	.52	.14	0.33	0.15	1.76	.00	.00	.00	.00	0.00	0.00	0.00	
18	30.950	0.61	0.24	0.33	-26	.43	.66	.52	.14	0.33	0.15	1.76	.00	.00	.00	.00	0.00	0.00	0.00	
19	30.850	0.61	0.24	0.33	-26	.43	.66	.52	.14	0.33	0.15	1.77	.00	.00	.00	.00	0.00	0.00	0.00	
20	30.750	0.61	0.24	0.33	-26	.43	.67	.52	.14	0.33	0.15	1.77	.00	.00	.00	.00	0.00	0.00	0.00	
21	30.650	0.61	0.24	0.33	-26	.43	.67	.53	.14	0.33	0.15	1.78	.00	.00	.00	.00	0.00	0.00	0.00	
22	30.550	0.61	0.24	0.34	-26	.44	.67	.53	.14	0.33	0.15	1.78	.00	.00	.00	.00	0.00	0.00	0.00	
23	30.450	0.61	0.24	0.34	-26	.44	.67	.53	.14	0.34	0.15	1.79	.00	.00	.00	.00	0.00	0.00	0.00	
24	30.350	0.61	0.24	0.34	-26	.44	.67	.53	.14	0.34	0.15	1.79	.00	.00	.00	.00	0.00	0.00	0.00	
25	30.250	0.61	0.24	0.34	-26	.44	.67	.53	.14	0.34	0.15	1.80	.00	.00	.00	.00	0.00	0.00	0.00	
26	30.150	0.61	0.24	0.34	-26	.44	.67	.53	.14	0.34	0.15	1.80	.00	.00	.00	.00	0.00	0.00	0.00	
27	30.050	0.61	0.23	0.34	-26	.44	.67	.53	.14	0.34	0.15	1.81	.00	.00	.00	.00	0.00	0.00	0.00	
28	29.950	0.62	0.23	0.34	-26	.44	.67	.53	.14	0.34	0.15	1.81	.00	.00	.00	.00	0.00	0.00	0.00	
29	29.850	0.62	0.23	0.34	-26	.44	.67	.53	.14	0.34	0.15	1.82	.00	.00	.00	.00	0.00	0.00	0.00	
30	29.750	0.62	0.23	0.34	-26	.45	.67	.54	.14	0.35	0.15	1.82	.00	.00	.00	.00	0.00	0.00	0.00	
31	29.650	0.62	0.23	0.34	-26	.45	.67	.54	.14	0.35	0.15	1.82	.00	.00	.00	.00	0.00	0.00	0.00	
32	29.550	0.62	0.23	0.34	-26	.45	.67	.54	.14	0.35	0.15	1.83	.00	.00	.00	.00	0.00	0.00	0.00	
33	29.450	0.62	0.23	0.34	-26	.45	.67	.54	.14	0.35	0.15	1.83	.00	.00	.00	.00	0.00	0.00	0.00	
34	29.350	0.62	0.23	0.34	-26	.45	.67	.54	.14	0.35	0.15	1.84	.00	.00	.00	.00	0.00	0.00	0.00	
35	29.250	0.62	0.23	0.34	-26	.45	.68	.54	.14	0.35	0.15	1.84	.00	.00	.00	.00	0.00	0.00	0.00	
36	29.150	0.62	0.23	0.34	-26	.45	.68	.54	.14	0.35	0.15	1.85	.00	.00	.00	.00	0.00	0.00	0.00	
37	29.050	0.62	0.23	0.34	-26	.46	.68	.54	.14	0.36	0.15	1.85	.00	.00	.00	.00	0.00	0.00	0.00	
38	28.950	0.62	0.23	0.34	-26	.46	.68	.55	.14	0.36	0.15	1.86	.00	.00	.00	.00	0.00	0.00	0.00	
39	28.850	0.62	0.23	0.34	-26	.46	.68	.55	.14	0.36	0.15	1.86	.00	.00	.00	.00	0.00	0.00	0.00	
40	28.750	0.62	0.23	0.34	-26	.46	.68	.55	.14	0.36	0.15	1.86	.00	.00	.00	.00	0.00	0.00	0.00	

20 DEG C RATE

0.50

1.62

0.10

0.00

0.00

NOTE ON NITR PREF:

1.0=N03 ; 0.0=NH3

1 FINAL REPORT

Lake Des Allemands

REACH NO. 4

Bayou Des Allemands

QUAL-TX simulation for Upper Bayou Des Allemands, LA
Adjusted Verification

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *	
41	UPR RCH	106.9200	29.50	0.13	205.2	0.0	6.33	5.01	5.01	1.21	0.19	0.06	0.08	43.0	0.	0.00

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	CU M	SQ M	AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
41	28.75	28.65	106.9200	9.3	0.105	0.01	2.16	470.0	101523.	47001.3	1015.2	0.	0.000	4.500	0.105	
42	28.65	28.55	106.9200	9.3	0.105	0.01	2.16	470.0	101523.	47001.3	1015.2	0.	0.000	4.500	0.105	
43	28.55	28.45	106.9200	9.3	0.105	0.01	2.16	470.0	101523.	47001.3	1015.2	0.	0.000	4.500	0.105	
44	28.45	28.35	106.9200	9.3	0.105	0.01	2.16	470.0	101523.	47001.3	1015.2	0.	0.000	4.500	0.105	
45	28.35	28.25	106.9200	9.3	0.105	0.01	2.16	470.0	101523.	47001.3	1015.2	0.	0.000	4.500	0.105	
TOT AVG CUM				0.105		0.05	2.16	470.0	507614.	235006.5	1015.2					
						0.89										

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE 1/DA	CBOD DECAY 1/DA	CBOD SETT 1/DA	ANBOD DECAY 1/DA	FULL SOD *	CORR SOD *	ORGN DECAY 1/DA	ORGN SETT 1/DA	NH3 SRCE *	DENIT 1/DA *	PO4 SRCE 1/DA *	ALG PROD **	MAC PROD ***	COLI DECAY 1/DA	NCM DECAY 1/DA	SETT 1/DA
41	28.650	7.63	0.55	0.22	0.00	0.00	5.03	5.03	0.03	0.00	0.18	0.23	0.00	0.02	0.48	0.00	0.00	
42	28.550	7.65	0.54	0.21	0.00	0.00	5.00	5.00	0.03	0.00	0.18	0.23	0.00	0.02	0.48	0.00	0.00	
43	28.450	7.67	0.54	0.21	0.00	0.00	4.97	4.97	0.03	0.00	0.18	0.23	0.00	0.02	0.48	0.00	0.00	
44	28.350	7.68	0.54	0.21	0.00	0.00	4.94	4.94	0.03	0.00	0.18	0.23	0.00	0.02	0.48	0.00	0.00	
45	28.250	7.70	0.54	0.21	0.00	0.00	4.91	4.91	0.03	0.00	0.18	0.23	0.00	0.02	0.48	0.00	0.00	
20 DEG C RATE			0.14		0.00		1.60		0.02		0.10	0.12		0.00		0.00		
AVG 20 DEG C RATE			0.46		0.00						0.00					0.00		
* G/SQ M/D				** MG/L/DAY														

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
41	28.650	29.38	0.1	205.2	0.0	6.30	5.00	5.00	1.21	0.20	0.06	1.47	0.08	42.9	0.0	0.

* CM-I = cond umhos

= 11-**WJN** =

umhos

***** ALGAE AND MACROPHYTE DATA *****

20 DEC 5 DATE 0 50 0 00 0 00

NOTE ON NITR PREF: 1.0=N03 ; 0.0=NH3
FINAL REPORT LAKE DES ALLEMANDS
PEACH NO. 5 BAYOU DES ALLEMANDS

QUAL-TX simulation for Upper Bayou Des Allemands, LA
Adjusted Verification

REACH INPUTS																
LEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	ORGN MG/L	NH3 MG/L	N03+2 MG/L	PHOS MG/L	CHL A ug/l	COLI #/100ML	NCM *	
46	UPR RCH	106.9200	28.90	0.12	205.2	0.0	6.21	4.98	4.98	1.21	0.20	0.06	0.08	42.7	0.	0.00
HYDRAULIC PARAMETER VALUES																
LEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPNSN SQ M/S	MEAN VELO M/S	
46	28.25	28.15	106.9200	9.3	0.190	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.190	
47	28.15	28.05	106.9200	9.3	0.190	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.190	
48	28.05	27.95	106.9200	9.3	0.190	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.190	
49	27.95	27.85	106.9200	9.3	0.190	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.190	
50	27.85	27.75	106.9200	9.3	0.190	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.190	
51	27.75	27.65	106.9200	9.3	0.190	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.190	

100

52	27.65	27.55	106.9200	9.3	0.190	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.190
53	27.55	27.45	106.9200	9.3	0.190	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.190
54	27.45	27.35	106.9200	9.3	0.190	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.190
55	27.35	27.25	106.9200	9.3	0.190	0.01	2.16	260.1	56180.	26009.2	561.8	0.	0.000	4.500	0.190
TOT						0.06	2.16	260.1	561798.	260091.5	561.8				
Avg						0.190	0.95								
CUM															

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REARER RATE 1/DA	CBOD DECAY 1/DA	ANBOD SETT 1/DA	FULL CORR 1/DA	CBOD DECAY 1/DA	ORG SO ₂ 1/DA	ORG SETT 1/DA	NH ₃ SRCE 1/DA	DENIT RATE 1/DA	P04 * 1/DA	ALG PROD ** 1/DA	COLI PROD 1/DA	NCM DECAY 1/DA	NCM SETT 1/DA	
46	28.150	7.71	0.64	0.21	0.00	4.90	4.90	0.03	0.00	0.17	0.34	0.00	0.02	0.48	0.00	0.00	0.00
47	28.050	7.72	0.64	0.21	0.00	4.88	4.88	0.03	0.00	0.17	0.34	0.00	0.02	0.48	0.00	0.00	0.00
48	27.950	7.72	0.64	0.21	0.00	4.87	4.87	0.03	0.00	0.17	0.34	0.00	0.02	0.48	0.00	0.00	0.00
49	27.850	7.73	0.64	0.21	0.00	4.85	4.85	0.03	0.00	0.17	0.33	0.00	0.02	0.48	0.00	0.00	0.00
50	27.750	7.74	0.64	0.21	0.00	4.84	4.84	0.03	0.00	0.17	0.33	0.00	0.02	0.48	0.00	0.00	0.00
51	27.650	7.75	0.64	0.21	0.00	4.82	4.82	0.03	0.00	0.17	0.33	0.00	0.02	0.48	0.00	0.00	0.00
52	27.550	7.76	0.64	0.21	0.00	4.81	4.81	0.03	0.00	0.17	0.33	0.00	0.02	0.48	0.00	0.00	0.00
53	27.450	7.76	0.64	0.21	0.00	4.79	4.79	0.03	0.00	0.17	0.33	0.00	0.02	0.48	0.00	0.00	0.00
54	27.350	7.77	0.63	0.21	0.00	4.78	4.78	0.03	0.00	0.17	0.33	0.00	0.02	0.48	0.00	0.00	0.00
55	27.250	7.78	0.63	0.20	0.00	4.76	4.76	0.03	0.00	0.17	0.33	0.00	0.02	0.48	0.00	0.00	0.00
20 DEG C RATE			0.14		0.00		1.60	0.02		0.10	0.18	0.00	0.02		0.00	0.00	
AVG 20 DEG C RATE			0.54		0.00												

* G/SQ M/D

** MG/L/DAY

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP	SALN	CM-I * PPT	CM-II * *	DO MG/L	BOD MG/L	EBOD MG/L	ORG MG/L	NH ₃ MG/L	NO ₃ + ₂ MG/L	TOTN MG/L	PHOS UG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
46	28.150	28.84	0.1	205.2	0.0	6.20	4.98	4.98	1.21	0.20	0.06	1.47	0.08	42.7	0.0	0.	0.00
47	28.050	28.78	0.1	205.2	0.0	6.19	4.97	4.97	1.21	0.20	0.06	1.47	0.08	42.6	0.0	0.	0.00
48	27.950	28.72	0.1	205.2	0.0	6.18	4.97	4.97	1.21	0.20	0.06	1.47	0.08	42.6	0.0	0.	0.00
49	27.850	28.66	0.1	205.2	0.0	6.16	4.96	4.96	1.21	0.20	0.06	1.47	0.08	42.6	0.0	0.	0.00
50	27.750	28.60	0.1	205.2	0.0	6.15	4.95	4.95	1.21	0.20	0.06	1.47	0.08	42.5	0.0	0.	0.00
51	27.650	28.54	0.1	205.2	0.0	6.14	4.95	4.95	1.21	0.20	0.06	1.47	0.08	42.5	0.0	0.	0.00
52	27.550	28.48	0.1	205.2	0.0	6.13	4.94	4.94	1.21	0.21	0.06	1.47	0.08	42.5	0.0	0.	0.00
53	27.450	28.42	0.1	205.2	0.0	6.12	4.94	4.94	1.21	0.21	0.06	1.47	0.08	42.4	0.0	0.	0.00
54	27.350	28.36	0.1	205.2	0.0	6.11	4.93	4.93	1.21	0.21	0.06	1.48	0.08	42.4	0.0	0.	0.00
55	27.250	28.30	0.1	205.2	0.0	6.09	4.93	4.93	1.21	0.21	0.06	1.48	0.08	42.4	0.0	0.	0.00

* CM-I = cond

CM-II =

NCM =

umhos G/CU M

***** ALGAE AND MACROPHYTE DATA *****

NOTE ON NITR PREF: 1.0=N03 : 0.0=NH3

FINAL REPORT
REACH NO. 6

卷之三

HYDRAULIC PARAMETER VALUES											
ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L
56	UPR RCH	106.9200	28.30	0.11	205.2	0.0	6.09	4.93	4.93	1.21	0.06
ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M
56	27.25	27.15	106.9200	9.3	0.157	0.01	2.62	259.6	68027.	25964.6	680.3
57	27.15	27.05	106.9200	9.3	0.157	0.01	2.62	259.6	68027.	25964.6	680.3
58	27.05	26.95	106.9200	9.3	0.157	0.01	2.62	259.6	68027.	25964.6	680.3
59	26.95	26.85	106.9200	9.3	0.157	0.01	2.62	259.6	68027.	25964.6	680.3
60	26.85	26.75	106.9200	9.3	0.157	0.01	2.62	259.6	68027.	25964.6	680.3
61	26.75	26.65	106.9200	9.3	0.157	0.01	2.62	259.6	68027.	25964.6	680.3
62	26.65	26.55	106.9200	9.3	0.157	0.01	2.62	259.6	68027.	25964.6	680.3

2004

63	26.55	26.45	106.9200	9.3	0.157	0.01	2.62	259.6	68027.	25964.6	680.3	0.	0.000	4.500	0.157
64	26.45	26.35	106.9200	9.3	0.157	0.01	2.62	259.6	68027.	25964.6	680.3	0.	0.000	4.500	0.157
65	26.35	26.25	106.9200	9.3	0.157	0.01	2.62	259.6	68027.	25964.6	680.3	0.	0.000	4.500	0.157
TOT						0.07	2.62	259.6	680272.	259645.8	680.3				
Avg						0.157	1.02								
Cum															

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY SETT 1/DA	CBOD SETT 1/DA	ANBOD DECAY 1/DA	FULL SOD 1/DA	CORR SOD 1/DA	ORGN DECAY SETT 1/DA	ORGN SRCE 1/DA	NH3 DECAY SRCE 1/DA	DENIT RATE **	P04 SRCE 1/DA	ALG PROD **	MAC PROD **	COLI DECAY 1/DA	NCM SETT 1/DA
56	27.150	7.76	0.44	0.21	0.00	0.00	4.79	4.79	0.03	0.00	0.17	0.37	0.00	0.02	0.27	0.00	0.00
57	27.050	7.75	0.44	0.21	0.00	0.00	4.81	4.81	0.03	0.00	0.17	0.37	0.00	0.02	0.27	0.00	0.00
58	26.950	7.73	0.44	0.21	0.00	0.00	4.84	4.84	0.03	0.00	0.17	0.37	0.00	0.02	0.28	0.00	0.00
59	26.850	7.71	0.45	0.21	0.00	0.00	4.87	4.87	0.03	0.00	0.17	0.38	0.00	0.02	0.28	0.00	0.00
60	26.750	7.69	0.45	0.21	0.00	0.00	4.90	4.90	0.03	0.00	0.17	0.38	0.00	0.02	0.28	0.00	0.00
61	26.650	7.68	0.45	0.21	0.00	0.00	4.92	4.92	0.03	0.00	0.18	0.38	0.00	0.02	0.29	0.00	0.00
62	26.550	7.66	0.45	0.21	0.00	0.00	4.95	4.95	0.03	0.00	0.18	0.39	0.00	0.02	0.29	0.00	0.00
63	26.450	7.64	0.45	0.21	0.00	0.00	4.98	4.98	0.03	0.00	0.18	0.39	0.00	0.02	0.29	0.00	0.00
64	26.350	7.62	0.45	0.22	0.00	0.00	5.01	5.01	0.03	0.00	0.18	0.39	0.00	0.02	0.30	0.00	0.00
65	26.250	7.61	0.45	0.22	0.00	0.00	5.04	5.04	0.03	0.00	0.18	0.40	0.00	0.02	0.30	0.00	0.00
20 DEG C RATE			0.14	0.00			1.60	0.02			0.10	0.20	0.00	0.02		0.00	
AVG 20 DEG C RATE			0.38	0.00													

* G/SQ M/D

** MG/L/DAY

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALIN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
56	27.150	28.43	0.1	205.2	0.0	6.08	4.92	4.92	1.21	0.21	0.06	1.48	0.08	42.3	0.0	0.00	
57	27.050	28.56	0.1	205.2	0.0	6.06	4.91	4.91	1.21	0.21	0.06	1.48	0.08	42.3	0.0	0.00	
58	26.950	28.69	0.1	205.2	0.0	6.05	4.91	4.91	1.21	0.21	0.06	1.48	0.08	42.2	0.0	0.00	
59	26.850	28.82	0.1	205.2	0.0	6.03	4.90	4.90	1.21	0.21	0.06	1.48	0.09	42.2	0.0	0.00	
60	26.750	28.95	0.1	205.2	0.0	6.02	4.89	4.89	1.21	0.21	0.06	1.48	0.09	42.1	0.0	0.00	
61	26.650	29.08	0.1	205.2	0.0	6.00	4.88	4.88	1.20	0.21	0.06	1.48	0.09	42.1	0.0	0.00	
62	26.550	29.21	0.1	205.2	0.0	5.99	4.88	4.88	1.20	0.21	0.06	1.48	0.09	42.1	0.0	0.00	
63	26.450	29.34	0.1	205.2	0.0	5.97	4.87	4.87	1.20	0.22	0.06	1.48	0.09	42.0	0.0	0.00	
64	26.350	29.47	0.1	205.2	0.0	5.96	4.86	4.86	1.20	0.22	0.06	1.48	0.09	42.0	0.0	0.00	
65	26.250	29.60	0.1	205.2	0.0	5.94	4.86	4.86	1.20	0.22	0.06	1.48	0.09	41.9	0.0	0.00	

* CM-I = cond
umhos

CM-II =

NCM =

** G/CU M

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST	SECCHI DEPTH	NITR PREF	ALG ALG ALG ALG ALG ALG	GROW RESP	A P/R MAC MAC MAC MAC	MAC GROW RESP	MAC MAC M/P/R
	M	M	1/DA	N P N&P TOT LIM LIM LIM	1/DA	RATIO LIT N P N&P TOT LIM LIM LIM	1/DA	1/DA
56	27.150	0.62	0.23	0.23 .19 .47 .68 .56 .11	0.25	0.15 .136 .00 .00 .00	0.00	0.00 .00 .00
57	27.050	0.62	0.23	0.23 .19 .48 .68 .56 .11	0.25	0.15 .137 .00 .00 .00	0.00	0.00 .00 .00
58	26.950	0.62	0.23	0.23 .19 .48 .68 .56 .11	0.25	0.15 .137 .00 .00 .00	0.00	0.00 .00 .00
59	26.850	0.62	0.23	0.24 .19 .48 .68 .56 .11	0.26	0.15 .137 .00 .00 .00	0.00	0.00 .00 .00
60	26.750	0.62	0.23	0.24 .19 .48 .68 .56 .11	0.26	0.15 .137 .00 .00 .00	0.00	0.00 .00 .00
61	26.650	0.62	0.23	0.24 .19 .48 .68 .56 .11	0.26	0.15 .137 .00 .00 .00	0.00	0.00 .00 .00
62	26.550	0.62	0.23	0.24 .19 .48 .68 .56 .11	0.26	0.15 .138 .00 .00 .00	0.00	0.00 .00 .00
63	26.450	0.62	0.23	0.24 .19 .48 .68 .56 .11	0.26	0.15 .138 .00 .00 .00	0.00	0.00 .00 .00
64	26.350	0.62	0.23	0.24 .19 .48 .68 .56 .11	0.27	0.15 .138 .00 .00 .00	0.00	0.00 .00 .00
65	26.250	0.62	0.23	0.24 .19 .48 .68 .57 .11	0.27	0.16 .138 .00 .00 .00	0.00	0.00 .00 .00
	20 DEG C RATE			0.50		1.62 .10		0.00 .00 .00

NOTE ON NITR PREF: 1.0=N03 ; 0.0=NH3

1 FINAL REPORT Lake Des Allemands
REACH NO. 7 Bayou Des Allemands***** REACH INPUTS *****
QUAL-TX simulation for Upper Bayou Des Allemands, LA.
Adjusted Verification

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALIN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A UG/L	COLI #/100ML	NCM *
66	UPR RCH	106.9200	29.60	0.12	205.2	0.0	5.94	4.86	4.86	1.20	0.22	0.06	0.09	41.9	0.	0.00

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
66	26.25	26.15	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.134
67	26.15	26.05	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.134
68	26.05	25.95	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.134
69	25.95	25.85	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.134
70	25.85	25.75	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.134
71	25.75	25.65	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.134
72	25.65	25.55	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.134
73	25.55	25.45	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.134

1 .004

bda.out

63 26.55 26.45 106.9200 9.3 0.157 0.01 2.62 259.6 68027. 25964.6 680.3 0. 0.000 4.500 0.157

74	25.45	25.35	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.134
75	25.35	25.25	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.134
TOT							0.09								
AVG							3.08	259.7	80000.	259740.3	800.0				
CUM							1.11								

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAR RATE 1/DA	CBOD DECAY 1/DA	CBOD SETT 1/DA	ANBOD DECAY 1/DA	FULL SO2 1/DA	CORR SO2 1/DA	ORGN DECAY 1/DA	ORGN SETT 1/DA	NH3 DECAY 1/DA	NH3 SRCE 1/DA	DENIT SRCE 1/DA	PO4 **	ALG PROD **	MAC PROD **	COLI 1/DA	NCM 1/DA	NCM 1/DA	DECAY SETT	
66	26.150	7.61	0.38	0.22	0.00	0.00	5.02	5.02	0.03	0.00	0.18	0.40	0.00	0.02	0.14	0.00	0.00	0.00	0.00	0.00	
67	26.050	7.62	0.38	0.22	0.00	0.00	5.01	5.01	0.03	0.00	0.18	0.39	0.00	0.02	0.14	0.00	0.00	0.00	0.00	0.00	
68	25.950	7.63	0.38	0.22	0.00	0.00	4.99	4.99	0.03	0.00	0.18	0.39	0.00	0.02	0.14	0.00	0.00	0.00	0.00	0.00	
69	25.850	7.63	0.38	0.22	0.00	0.00	4.98	4.98	0.03	0.00	0.18	0.39	0.00	0.02	0.15	0.00	0.00	0.00	0.00	0.00	
70	25.750	7.64	0.38	0.22	0.00	0.00	4.97	4.97	0.03	0.00	0.18	0.39	0.00	0.02	0.15	0.00	0.00	0.00	0.00	0.00	
71	25.650	7.65	0.38	0.21	0.00	0.00	4.95	4.95	0.03	0.00	0.18	0.39	0.00	0.02	0.15	0.00	0.00	0.00	0.00	0.00	
72	25.550	7.65	0.38	0.21	0.00	0.00	4.94	4.94	0.03	0.00	0.18	0.39	0.00	0.02	0.15	0.00	0.00	0.00	0.00	0.00	
73	25.450	7.66	0.38	0.21	0.00	0.00	4.92	4.92	0.03	0.00	0.18	0.39	0.00	0.02	0.15	0.00	0.00	0.00	0.00	0.00	
74	25.350	7.67	0.38	0.21	0.00	0.00	4.91	4.91	0.03	0.00	0.18	0.38	0.00	0.02	0.16	0.00	0.00	0.00	0.00	0.00	
75	25.250	7.67	0.38	0.21	0.00	0.00	4.90	4.90	0.03	0.00	0.17	0.38	0.00	0.02	0.16	0.00	0.00	0.00	0.00	0.00	
20 DEG C RATE			0.14		0.00		1.60		0.02		0.10	0.20		0.00		0.00		0.00			
AVG 20 DEG C RATE			0.32		0.00																

* G/SQ M/D

** MG/L/DAY

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
66	26.150	29.55	0.1	205.2	0.0	5.92	4.85	1.20	0.22	0.06	1.49	0.09	41.9	0.0	0.	0.00	
67	26.050	29.50	0.1	205.2	0.0	5.91	4.84	1.20	0.22	0.06	1.49	0.09	41.9	0.0	0.	0.00	
68	25.950	29.45	0.1	205.2	0.0	5.89	4.83	1.20	0.22	0.06	1.49	0.09	41.8	0.0	0.	0.00	
69	25.850	29.40	0.1	205.2	0.0	5.87	4.82	1.20	0.22	0.06	1.49	0.09	41.8	0.0	0.	0.00	
70	25.750	29.35	0.1	205.2	0.0	5.85	4.81	1.20	0.22	0.06	1.49	0.09	41.7	0.0	0.	0.00	
71	25.650	29.30	0.1	205.2	0.0	5.84	4.81	1.20	0.22	0.06	1.49	0.09	41.7	0.0	0.	0.00	
72	25.550	29.25	0.1	205.2	0.0	5.82	4.80	1.20	0.23	0.07	1.49	0.09	41.6	0.0	0.	0.00	
73	25.450	29.20	0.1	205.2	0.0	5.80	4.79	1.20	0.23	0.07	1.49	0.09	41.6	0.0	0.	0.00	
74	25.350	29.15	0.1	205.2	0.0	5.79	4.78	1.20	0.23	0.07	1.49	0.09	41.5	0.0	0.	0.00	
75	25.250	29.10	0.1	205.2	0.0	5.77	4.77	1.20	0.23	0.07	1.49	0.09	41.5	0.0	0.	0.00	

* CM-I = cond
limnos
** G/CU M

CM-II =

NCM =

***** A1 GAE AND MACROPHYTE DATA *****

ZIMMERMANN

ROUTE ON N11R PREF: 1.U=NU3 ; U.U=NH
FINAL REPORT LAKE DES ALLEMANDS

QUAL-TX simulation for Upper Bayou Des Allemands, LA
Adjusted Variations

卷之三

HYDRAULIC PARAMETER VALUES											
ITEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L
											N03+2 MG/L
76	UPR RCH	106.9200	29.10	0.12	205.2	0.0	5.77	4.77	4.77	1.20	0.23
											0.07
											0.09
											41.5
											0.
											0.00
BEGIN DIST KM	ENDING DIST KM	FLOW FCT EFF CMS	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	DISPRSN SQ M/S
76	25.25	25.15	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0
77	25.15	25.05	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0
78	25.05	24.95	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0
79	24.95	24.85	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0
80	24.85	24.75	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0
81	24.75	24.65	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0
82	24.65	24.55	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0
83	24.55	24.45	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0

85	24.35	24.25	106.9200	9.3	0.134	0.01	3.08	259.7	80000.	25974.0	800.0	0.	0.000	4.500	0.134
TOT						0.134	0.09	3.08	259.7	80000.	259740.3	800.0			
Avg															
CUM						1.20									

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	ANBOD DECAY 1/DA	FULL SOO * 1/DA	CORR SOO * 1/DA	ORGN DECAY SETT 1/DA	ORGN DECAY SETT 1/DA	NH3 DECAY SRCE * 1/DA	DENIT RATE * 1/DA	PO4 PROD ** 1/DA	ALG PROD ** 1/DA	MAC PROD ** 1/DA	COLI DECAY 1/DA	NCM DECAY 1/DA	NCM SETT 1/DA
76	25.150	7.68	0.38	0.21	0.00	0.00	5.23	0.03	0.00	0.17	0.38	0.00	0.01	0.16	0.00	0.00	0.00
77	25.050	7.69	0.38	0.21	0.00	0.00	5.22	0.03	0.00	0.17	0.38	0.00	0.01	0.16	0.00	0.00	0.00
78	24.950	7.70	0.38	0.21	0.00	0.00	5.20	0.03	0.00	0.17	0.38	0.00	0.01	0.16	0.00	0.00	0.00
79	24.850	7.70	0.38	0.21	0.00	0.00	5.18	0.03	0.00	0.17	0.38	0.00	0.01	0.16	0.00	0.00	0.00
80	24.750	7.71	0.38	0.21	0.00	0.00	5.17	0.03	0.00	0.17	0.37	0.00	0.01	0.16	0.00	0.00	0.00
81	24.650	7.72	0.38	0.21	0.00	0.00	5.15	0.03	0.00	0.17	0.37	0.00	0.01	0.17	0.00	0.00	0.00
82	24.550	7.73	0.38	0.21	0.00	0.00	5.13	0.03	0.00	0.17	0.37	0.00	0.01	0.17	0.00	0.00	0.00
83	24.450	7.74	0.38	0.21	0.00	0.00	5.12	0.03	0.00	0.17	0.37	0.00	0.01	0.17	0.00	0.00	0.00
84	24.350	7.75	0.38	0.21	0.00	0.00	5.10	0.03	0.00	0.17	0.37	0.00	0.01	0.17	0.00	0.00	0.00
85	24.250	7.75	0.38	0.21	0.00	0.00	5.08	0.08	0.00	0.17	0.37	0.00	0.01	0.17	0.00	0.00	0.00
20 DEG C RATE			0.14		0.00		1.80	0.02							0.00	0.00	
Avg 20 DEG C RATE			0.32		0.00												

* G/SQ M/D

** MG/L/DAY

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP	SALN	CM-I PPT	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
76	25.150	29.04	0.1	205.2	0.0	5.75	4.77	4.77	1.20	0.23	0.07	1.50	0.09	41.4	0.0	0.00	
77	25.050	28.98	0.1	205.2	0.0	5.74	4.76	4.76	1.20	0.23	0.07	1.50	0.09	41.4	0.0	0.00	
78	24.950	28.92	0.1	205.2	0.0	5.72	4.75	4.75	1.20	0.23	0.07	1.50	0.09	41.4	0.0	0.00	
79	24.850	28.86	0.1	205.2	0.0	5.70	4.74	4.74	1.20	0.23	0.07	1.50	0.09	41.3	0.0	0.00	
80	24.750	28.80	0.1	205.2	0.0	5.69	4.74	4.74	1.20	0.23	0.07	1.50	0.09	41.3	0.0	0.00	
81	24.650	28.74	0.1	205.2	0.0	5.67	4.73	4.73	1.20	0.23	0.07	1.50	0.09	41.2	0.0	0.00	
82	24.550	28.68	0.1	205.2	0.0	5.65	4.72	4.72	1.20	0.23	0.07	1.50	0.09	41.2	0.0	0.00	
83	24.450	28.62	0.1	205.2	0.0	5.64	4.72	4.72	1.20	0.24	0.07	1.50	0.09	41.1	0.0	0.00	
84	24.350	28.56	0.1	205.2	0.0	5.62	4.71	4.71	1.20	0.24	0.07	1.50	0.09	41.1	0.0	0.00	
85	24.250	28.50	0.1	205.2	0.0	5.61	4.70	4.70	1.20	0.24	0.07	1.50	0.09	41.1	0.0	0.00	

* CM-I = cond
umhos

CM-II =

NCM =

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST	SECCHI DEPTH	NITR PREF	ALG SETT LIT N P	ALG N&P TOT	ALG GROW 1/DA	A RESP 1/DA	P/R 1/DA	MAC LIT N P	MAC N&P TOT	MAC LIM LIM LIM LIM	MAC 1/DA	M GROW 1/DA	P/RESP 1/DA	RATIO
	M			1/DA	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	LIM	
76	25.150	0.63	0.22	0.20	.16	.50	.68	.57	.09	0.23	0.15	1.21	.00	.00	0.00
77	25.050	0.63	0.22	0.20	.16	.50	.68	.57	.09	0.23	0.15	1.21	.00	.00	0.00
78	24.950	0.63	0.22	0.20	.16	.50	.68	.58	.09	0.23	0.15	1.22	.00	.00	0.00
79	24.850	0.63	0.22	0.20	.16	.50	.68	.58	.09	0.23	0.15	1.22	.00	.00	0.00
80	24.750	0.63	0.22	0.20	.16	.50	.68	.58	.09	0.23	0.15	1.22	.00	.00	0.00
81	24.650	0.63	0.22	0.20	.16	.50	.68	.58	.09	0.23	0.15	1.22	.00	.00	0.00
82	24.550	0.63	0.22	0.20	.16	.50	.68	.58	.09	0.23	0.15	1.23	.00	.00	0.00
83	24.450	0.63	0.22	0.20	.16	.50	.68	.58	.09	0.23	0.15	1.23	.00	.00	0.00
84	24.350	0.63	0.22	0.20	.16	.50	.68	.58	.09	0.23	0.15	1.23	.00	.00	0.00
85	24.250	0.63	0.22	0.20	.16	.51	.68	.58	.10	0.23	0.15	1.23	.00	.00	0.00
	20 DEG C RATE				0.50										

NOTE ON NITR PREF: 1.0=N03 ; 0.0=NH3

1 FINAL REPORT Lake Des Allemands
REACH NO. 9 Bayou Des Allemands

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALIN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	PHOS MG/L	CHL A ug/l	COLI #/100ML	NCM *
86	UPR RCH	106.9200	28.50	0.11	205.2	0.0	5.61	4.70	4.70	1.20	0.24	0.07	0.09	41.1	0.

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST KM	ENDING DIST KM	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
86	24.25	24.15	106.9200	9.3	0.148	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.148
87	24.15	24.05	106.9200	9.3	0.148	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.148
88	24.05	23.95	106.9200	9.3	0.148	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.148
89	23.95	23.85	106.9200	9.3	0.148	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.148
90	23.85	23.75	106.9200	9.3	0.148	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.148
91	23.75	23.65	106.9200	9.3	0.148	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.148
92	23.65	23.55	106.9200	9.3	0.148	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.148
93	23.55	23.45	106.9200	9.3	0.148	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.148
94	23.45	23.35	106.9200	9.3	0.148	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.148
95	23.35	23.25	106.9200	9.3	0.148	0.01	2.79	259.7	72464.	25972.7	724.6	0.	0.000	4.500	0.148

TOT	
AVG	0.148
CIM	1.27

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REARER RATE 1/DA	CBDD DECAY 1/DA	CBDD SETT 1/DA	ANBOD DECAY 1/DA	ANBOD SETT 1/DA	FULL SOD 1/DA	CORR SOD 1/DA	ORGN DECAY 1/DA	ORGN SETT 1/DA	NH3 DECAY 1/DA	NH3 SETT 1/DA	DENIT SRCE 1/DA	PO4 SRCE 1/DA	COLI ** 1/DA	NCM DECAY 1/DA	NCM SETT 1/DA
86	24.150	7.75	0.42	0.21	0.00	0.00	4.74	4.74	0.03	0.00	0.17	0.40	0.00	0.00	0.26	0.00	0.00	0.00
87	24.050	7.75	0.42	0.21	0.00	0.00	4.74	4.74	0.03	0.00	0.17	0.40	0.00	0.00	0.26	0.00	0.00	0.00
88	23.950	7.75	0.42	0.21	0.00	0.00	4.74	4.74	0.03	0.00	0.17	0.40	0.00	0.00	0.27	0.00	0.00	0.00
89	23.850	7.75	0.42	0.21	0.00	0.00	4.73	4.73	0.03	0.00	0.17	0.40	0.00	0.00	0.27	0.00	0.00	0.00
90	23.750	7.75	0.42	0.21	0.00	0.00	4.73	4.73	0.03	0.00	0.17	0.40	0.00	0.00	0.27	0.00	0.00	0.00
91	23.650	7.75	0.42	0.21	0.00	0.00	4.73	4.73	0.03	0.00	0.17	0.40	0.00	0.00	0.27	0.00	0.00	0.00
92	23.550	7.75	0.42	0.21	0.00	0.00	4.73	4.73	0.03	0.00	0.17	0.40	0.00	0.00	0.27	0.00	0.00	0.00
93	23.450	7.75	0.42	0.21	0.00	0.00	4.73	4.73	0.03	0.00	0.17	0.40	0.00	0.00	0.27	0.00	0.00	0.00
94	23.350	7.75	0.42	0.21	0.00	0.00	4.73	4.73	0.03	0.00	0.17	0.40	0.00	0.00	0.27	0.00	0.00	0.00
95	23.250	7.75	0.42	0.21	0.00	0.00	4.72	4.72	0.03	0.00	0.17	0.40	0.00	0.00	0.27	0.00	0.00	0.00

20 DEC 7

016

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A ug/L	MACRO **	COLI #/100ML	NCM *
86	24.150	28.50	0.1	205.2	0.0	5.59	4.70	4.70	1.20	0.24	0.07	1.50	0.09	41.0	0.0	0.00	
87	24.050	28.50	0.1	205.2	0.0	5.58	4.69	4.69	1.20	0.24	0.07	1.51	0.09	41.0	0.0	0.00	
88	23.950	28.50	0.1	205.2	0.0	5.57	4.69	4.69	1.20	0.24	0.07	1.51	0.09	40.9	0.0	0.00	
89	23.850	28.50	0.1	205.2	0.0	5.55	4.68	4.68	1.20	0.24	0.07	1.51	0.09	40.9	0.0	0.00	
90	23.750	28.50	0.1	205.2	0.0	5.54	4.67	4.67	1.20	0.24	0.07	1.51	0.09	40.9	0.0	0.00	
91	23.650	28.50	0.1	205.2	0.0	5.53	4.67	4.67	1.20	0.24	0.07	1.51	0.09	40.8	0.0	0.00	
92	23.550	28.50	0.1	205.2	0.0	5.52	4.66	4.66	1.20	0.24	0.07	1.51	0.09	40.8	0.0	0.00	
93	23.450	28.50	0.1	205.2	0.0	5.50	4.66	4.66	1.20	0.25	0.07	1.51	0.09	40.8	0.0	0.00	
94	23.350	28.50	0.1	205.2	0.0	5.49	4.65	4.65	1.19	0.25	0.07	1.51	0.09	40.7	0.0	0.00	
95	23.250	28.50	0.1	205.2	0.0	5.48	4.64	4.64	1.19	0.25	0.07	1.51	0.09	40.7	0.0	0.00	

* CM-I = condumhos

MCM-11 = MCM =

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST	SECCHI DEPTH	NITR PREF	ALG ALG ALG ALG ALG ALG	GROW 1/DA LIM LIM LIM LIM LIM	ALG RESP 1/DA	A P/R MAC MAC MAC MAC	MAC	MAC	M P/R
	M	M	P	N&P TOT	LIM	1/DA	LIM LIM LIM LIM LIM	N&P TOT	GROW 1/DA	RESP RATIO
86	24.150	0.63	0.22	0.22 .18 .51 .68 .58 .10	0.25	0.15	1.36 .00 .00 .00 .00	.00	0.00	0.00
87	24.050	0.63	0.22	0.22 .18 .51 .68 .58 .11	0.25	0.15	1.36 .00 .00 .00 .00	.00	0.00	0.00
88	23.950	0.63	0.22	0.22 .18 .51 .68 .58 .11	0.25	0.15	1.37 .00 .00 .00 .00	.00	0.00	0.00
89	23.850	0.63	0.22	0.22 .18 .51 .68 .58 .11	0.25	0.15	1.37 .00 .00 .00 .00	.00	0.00	0.00
90	23.750	0.63	0.22	0.22 .18 .51 .68 .58 .11	0.25	0.15	1.37 .00 .00 .00 .00	.00	0.00	0.00
91	23.650	0.63	0.22	0.22 .18 .51 .68 .58 .11	0.25	0.15	1.37 .00 .00 .00 .00	.00	0.00	0.00
92	23.550	0.63	0.22	0.22 .18 .51 .68 .58 .11	0.25	0.15	1.37 .00 .00 .00 .00	.00	0.00	0.00
93	23.450	0.63	0.22	0.22 .18 .51 .68 .58 .11	0.25	0.15	1.37 .00 .00 .00 .00	.00	0.00	0.00
94	23.350	0.63	0.22	0.22 .18 .51 .68 .58 .11	0.25	0.15	1.38 .00 .00 .00 .00	.00	0.00	0.00
95	23.250	0.63	0.22	0.22 .18 .51 .68 .58 .11	0.25	0.15	1.38 .00 .00 .00 .00	.00	0.00	0.00
	20 DEG C RATE			0.50		1.62	0.10		0.00	0.00

NOTE ON NITR PREF: 1.0=N03 ; 0.0=NH3

1 FINAL REPORT Lake Des Allemands
REACH NO. 10 Bayou Des Allemands

***** REACH INPUTS *****

ELEM NO.	TYPE	FLOW CMS	TEMP DEG C	SALIN PPT	CN-I *	CN-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	N03+2 MG/L	PHOS UG/L	CHL A UG/L	COLI #/100ML	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
96	UPR RCH	106.9200	28.50	0.11	205.2	0.0	5.48	4.64	4.64	1.19	0.25	0.07	0.09	40.7	0.	0.00	0.00	0.00	

***** HYDRAULIC PARAMETER VALUES *****

ELEM NO.	BEGIN DIST	ENDING DIST	FLOW CMS	PCT EFF	ADVCTV VELO M/S	TRAVEL TIME DAYS	DEPTH M	WIDTH M	VOLUME CU M	SURFACE AREA SQ M	X-SECT AREA SQ M	TIDAL PRISM CU M	TIDAL VELO M/S	DISPRSN SQ M/S	MEAN VELO M/S
96	23.25	23.15	106.9200	9.3	0.165	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.165
97	23.15	23.05	106.9200	9.3	0.165	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.165
98	23.05	22.95	106.9200	9.3	0.165	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.165
99	22.95	22.85	106.9200	9.3	0.165	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.165
100	22.85	22.75	106.9200	9.3	0.165	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.165
101	22.75	22.65	106.9200	9.3	0.165	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.165
102	22.65	22.55	106.9200	9.3	0.165	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.165
103	22.55	22.45	106.9200	9.3	0.165	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.165
104	22.45	22.35	106.9200	9.3	0.165	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.165
105	22.35	22.25	106.9200	9.3	0.165	0.01	2.50	259.7	64935.	25974.0	649.4	0.	0.000	4.500	0.165

TOT	Avg	0.165	0.07	2.50	259.7	649351.	259740.3	649.4
	CUM							

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O. MG/L	REAER RATE 1/DA	CBOD DECAY 1/DA	ANBOD DECAY 1/DA	FULL CORR SOD * * 1/DA	ORGN DECAY SRCE 1/DA	ORGN DECAY SETT 1/DA	NH3 DECAY SRCE 1/DA	DENIT RATE * * 1/DA	PO4 SRCE * * 1/DA	ALG PROD ** 1/DA	MAC PROD ** 1/DA	COLI DECAY 1/DA	NCM DECAY 1/DA	NCM SETT 1/DA
96	23.150	7.75	0.48	0.21	0.00	0.00	4.39	0.03	0.00	0.17	0.44	0.00	0.00	0.39	0.00	0.00
97	23.050	7.74	0.48	0.21	0.00	0.00	4.40	0.03	0.00	0.17	0.44	0.00	0.00	0.39	0.00	0.00
98	22.950	7.74	0.48	0.21	0.00	0.00	4.40	0.03	0.00	0.17	0.44	0.00	0.00	0.39	0.00	0.00
99	22.850	7.73	0.48	0.21	0.00	0.00	4.41	0.03	0.00	0.17	0.45	0.00	0.00	0.39	0.00	0.00
100	22.750	7.73	0.48	0.21	0.00	0.00	4.41	0.03	0.00	0.17	0.45	0.00	0.00	0.39	0.00	0.00
101	22.650	7.72	0.48	0.21	0.00	0.00	4.42	0.03	0.00	0.17	0.45	0.00	0.00	0.39	0.00	0.00
102	22.550	7.72	0.48	0.21	0.00	0.00	4.43	0.03	0.00	0.17	0.45	0.00	0.00	0.40	0.00	0.00
103	22.450	7.71	0.48	0.21	0.00	0.00	4.43	0.03	0.00	0.17	0.45	0.00	0.00	0.40	0.00	0.00
104	22.350	7.71	0.48	0.21	0.00	0.00	4.44	0.03	0.00	0.17	0.45	0.00	0.00	0.40	0.00	0.00
105	22.250	7.70	0.48	0.21	0.00	0.00	4.45	0.03	0.00	0.17	0.45	0.00	0.00	0.40	0.00	0.00
	20 DEG C RATE		0.41	0.14	0.00	0.00	1.40	0.02	0.00	0.10	0.24	0.00	0.00	0.00	0.00	0.00
	AVG 20 DEG C RATE															

* G/SQ M/D

** MG/L/DAY

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALIN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
96	23.150	28.54	0.1	205.2	0.0	5.47	4.64	4.64	1.19	0.25	0.07	1.51	0.09	40.7	0.0	0.00	
97	23.050	28.58	0.1	205.2	0.0	5.46	4.63	4.63	1.19	0.25	0.07	1.52	0.09	40.6	0.0	0.00	
98	22.950	28.62	0.1	205.2	0.0	5.45	4.63	4.63	1.19	0.25	0.07	1.52	0.09	40.6	0.0	0.00	
99	22.850	28.66	0.1	205.2	0.0	5.44	4.62	4.62	1.19	0.25	0.07	1.52	0.09	40.6	0.0	0.00	
100	22.750	28.70	0.1	205.2	0.0	5.43	4.62	4.62	1.19	0.25	0.07	1.52	0.09	40.5	0.0	0.00	
101	22.650	28.74	0.1	205.2	0.0	5.42	4.61	4.61	1.19	0.25	0.07	1.52	0.09	40.5	0.0	0.00	
102	22.550	28.78	0.1	205.2	0.0	5.41	4.61	4.61	1.19	0.26	0.07	1.52	0.09	40.5	0.0	0.00	
103	22.450	28.82	0.1	205.2	0.0	5.40	4.60	4.60	1.19	0.26	0.07	1.52	0.09	40.4	0.0	0.00	
104	22.350	28.86	0.1	205.2	0.0	5.39	4.60	4.60	1.19	0.26	0.07	1.52	0.09	40.4	0.0	0.00	
105	22.250	28.90	0.1	205.2	0.0	5.38	4.59	4.59	1.19	0.26	0.07	1.52	0.09	40.4	0.0	0.00	

* CM-I = cond
umhos
** G/CU M

CM-II =

NCM =

***** ALGAE AND MACROPHYTE DATA *****

NO.	ELEM	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG						ALG						ALG						A P/R						MAC						MAC										
					ALG	ALG	ALG	ALG	N	P	N&P	TOT	LIT	1/DA	LIM	LIM	LIM	LIM	LIM	LIM	LIM	RESP	1/DA	GROW	1/DA	RESP	1/DA	M/P RATIO																	
96	23.150	0.63	0.22	0.24	.20	.52	.68	.59	.12																													0.00	0.00	0.00	0.00	0.00	0.00		
97	23.050	0.63	0.22	0.25	.20	.52	.68	.59	.12																															0.00	0.00	0.00	0.00	0.00	0.00
98	22.950	0.63	0.22	0.25	.20	.52	.68	.59	.12																															0.00	0.00	0.00	0.00	0.00	0.00
99	22.850	0.63	0.22	0.25	.20	.52	.68	.59	.12																															0.00	0.00	0.00	0.00	0.00	0.00
100	22.750	0.63	0.22	0.25	.20	.52	.68	.59	.12																															0.00	0.00	0.00	0.00	0.00	0.00
101	22.650	0.63	0.22	0.25	.20	.52	.68	.59	.12																															0.00	0.00	0.00	0.00	0.00	0.00
102	22.550	0.63	0.22	0.25	.20	.52	.68	.59	.12																															0.00	0.00	0.00	0.00	0.00	0.00
103	22.450	0.63	0.22	0.25	.20	.52	.68	.59	.12																															0.00	0.00	0.00	0.00	0.00	0.00
104	22.350	0.63	0.22	0.25	.20	.52	.68	.59	.12																															0.00	0.00	0.00	0.00	0.00	0.00
105	22.250	0.63	0.22	0.25	.20	.52	.68	.59	.12																															0.00	0.00	0.00	0.00	0.00	0.00

NOTE ON NITR PREF: 1.0=N03 ; 0.0=NH3
FINAL REPORT LAKE DES ALLEMANDS
REFAC NO 11 BAVOU DES ALLEMANDS

QUAL-TX simulation for Upper Bayou Des Allemands, LA
Adjusted Verification

0.20 DEG C RATE 0.50 1.62 0.10 0.00 0.00

2004

***** BIOLOGICAL AND PHYSICAL COEFFICIENTS *****

ELEM NO.	ENDING DIST	SAT D.O.	REAER RATE	CBOD RATE	ANBOD DECAY	FULL SOD	CORR SOD	ORGN SETT	NH3 DECAY	PO4 SRCE	ALG PROD	MAC PROD	COLI DECAY	NCM DECAY	NCM SETT
	MG/L	1/DA	1/DA	1/DA	1/DA	*	*	1/DA	1/DA	*	**	**	1/DA	1/DA	1/DA
106	22.150	7.69	0.74	0.21	0.00	0.00	4.11	4.11	0.03	0.00	0.17	0.49	0.00	0.40	0.00
107	22.050	7.68	0.74	0.21	0.00	0.00	4.12	4.12	0.03	0.00	0.17	0.50	0.00	0.40	0.00
108	21.950	7.67	0.74	0.21	0.00	0.00	4.13	4.13	0.03	0.00	0.17	0.50	0.00	0.41	0.00
109	21.850	7.66	0.74	0.21	0.00	0.00	4.15	4.15	0.03	0.00	0.17	0.50	0.00	0.41	0.00
110	21.750	7.65	0.74	0.21	0.00	0.00	4.16	4.16	0.03	0.00	0.17	0.50	0.00	0.41	0.00
111	21.650	7.64	0.75	0.21	0.00	0.00	4.17	4.17	0.03	0.00	0.17	0.51	0.00	0.41	0.00
112	21.550	7.63	0.75	0.22	0.00	0.00	4.18	4.18	0.03	0.00	0.18	0.51	0.00	0.41	0.00
20 DEG C RATE			0.63	0.14	0.00			1.20	0.02		0.10	0.26	0.00	0.00	
Avg 20 DEG C RATE															
* G/SQ M/D															
** MG/L/DAY															

* CM-I = cond umhos

** G/CU M

***** WATER QUALITY CONSTITUENT VALUES *****

ELEM NO.	ENDING DIST	TEMP DEG C	SALN PPT	CM-I *	CM-II *	DO MG/L	BOD MG/L	EBOD MG/L	ORGN MG/L	NH3 MG/L	NO3+2 MG/L	TOTN MG/L	PHOS MG/L	CHL A UG/L	MACRO **	COLI #/100ML	NCM *
106	22.150	28.97	0.1	205.2	0.0	5.38	4.59	4.59	1.19	0.26	0.07	1.52	0.09	40.4	0.0	0.0	
107	22.050	29.04	0.1	205.2	0.0	5.38	4.59	4.59	1.19	0.26	0.07	1.52	0.09	40.4	0.0	0.0	
108	21.950	29.11	0.1	205.2	0.0	5.38	4.59	4.59	1.19	0.26	0.07	1.52	0.09	40.4	0.0	0.0	
109	21.850	29.19	0.1	205.2	0.0	5.37	4.59	4.59	1.19	0.26	0.07	1.53	0.09	40.3	0.0	0.0	
110	21.750	29.26	0.1	205.2	0.0	5.37	4.58	4.58	1.19	0.26	0.07	1.53	0.09	40.3	0.0	0.0	
111	21.650	29.33	0.1	205.1	0.0	5.38	4.57	4.57	1.19	0.26	0.07	1.53	0.09	40.3	0.0	0.0	
112	21.550	29.40	0.1	204.2	0.0	5.46	4.42	4.42	1.20	0.26	0.07	1.53	0.09	40.3	0.0	0.0	

* CM-I = cond umhos

** G/CU M

CM-II = NCM =

***** ALGAE AND MACROPHYTE DATA *****

ELEM NO.	ENDING DIST	SECCHI DEPTH M	NITR PREF	ALG SETT LIT N	ALG P N&P TOT	ALG RESP 1/DA	ALG GROW 1/DA	ALG A/P/R LIT N	ALG MAC MAC MAC	ALG MAC MAC MAC	ALG MAC MAC MAC	ALG M/P/R	
				1/DA	LIM LIM LIM LIM	1/DA	1/DA	LIM LIM LIM LIM	LIM LIM LIM LIM	LIM LIM LIM LIM	LIM LIM LIM LIM	RESP	RATIO 1/DA
106	22.150	0.63	0.22	0.25	-20 .53 -68 .59	.12	0.29	0.15	1.55 .00 .00 .00	.00 .00 .00 .00	.00 .00 .00 .00	0.00	0.00
107	22.050	0.63	0.22	0.25	-20 .53 -68 .59	.12	0.29	0.15	1.55 .00 .00 .00	.00 .00 .00 .00	.00 .00 .00 .00	0.00	0.00
108	21.950	0.63	0.22	0.25	-20 .53 -68 .59	.12	0.29	0.15	1.55 .00 .00 .00	.00 .00 .00 .00	.00 .00 .00 .00	0.00	0.00
109	21.850	0.63	0.22	0.25	-20 .53 -68 .59	.12	0.30	0.15	1.55 .00 .00 .00	.00 .00 .00 .00	.00 .00 .00 .00	0.00	0.00

110	21.750	0.63	0.22	0.25	.20	.53	.68	.59	.12	0.30	0.15	1.55	0.00	0.00	0.00	0.00
111	21.650	0.63	0.22	0.25	.20	.53	.68	.59	.12	0.30	0.15	1.55	0.00	0.00	0.00	0.00
112	21.550	0.63	0.21	0.25	.20	.52	.68	.59	.12	0.30	0.15	1.55	0.00	0.00	0.00	0.00

20 DEG C RATE

NOTE ON NITR PREF: 1.0=N03 ; 0.0=NH3
 1 QUAL-TX simulation for Upper Bayou Des Allemands, LA
 Adjusted Verification

INPUT/OUTPUT LOADING SUMMARY

	FLOW CMS	DO KG/D	BOD KG/D	ORG-N KG/D	NH3-N KG/D	N03-N KG/D	PHOS KG/D	CHL A KG/D	NCM
HEADWATER INFLOW	96.960	83270.8	44399.9	10387.9	1340.4	418.9	578.0	410489.8	0.0
INCREMENTAL INFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
INCREMENTAL OUTFLOW	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
NON-POINT INPUT	0.000	0.0	6390.0	0.0	0.0	0.0	0.0	0.0	0.0
WASTELOADS	9.960	206.6	4563.2	1067.3	138.1	43.4	59.6	42166.7	0.0
WITHDRAWALS	0.000	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
OUTFLOW THRU LOWER BNDRY	-106.920	-50475.1	-40788.7	-11107.4	-2401.5	-636.9	-795.1	-371846.1	0.0
DISPERSION THRU LOWER BNDRY		900.4	-1532.7	100.7	-21.1	-40.0	6.2	-532.7	0.0
REAERATION		4642.5							
BACKGROUND BENTHAL		-16807.7							
AEROBIC BOD DECAY		-13031.6							
BOD SETTLING		0.0	0.0						
ANEROBIC BOD DECAY		0.0	0.0	-448.4	448.4	0.0			
ORGANIC N HYDROLYSIS				0.0	0.0				
ORGANIC N SETTLING						421.5			
NH3 DECAY		-1825.3			1184.4	0.0			
BACKGROUND NH3 SOURCE									
DENITRIFICATION									
PHOSPHORUS SOURCE									
ALGAE PHOTOSYNTHESIS		16715.1			-681.0	-207.0	223.8		
ALGAE RESPIRATION		-9727.3			413.4		-135.8	174115.2	
ALGAE SETTLING		-13857.1			0.0	0.0	63.2	-81060.9	
MACRO PHOTOSYNTHESIS		0.0						-173213.7	
NCM DECAY		0.0							0.0
NCM SETTLING		0.0							0.0

TOTAL INPUTS	106.920	105735.3	55353.1	11555.8	3524.7	883.8	930.8	626771.8	0.0
TOTAL OUTPUTS	-106.920	-105723.9	-55353.0	-11555.8	-3525.1	-884.0	-930.9	-626653.3	0.0
NET CONVERGENCE ERROR	0.000	11.4	0.1	0.0	-0.5	-0.1	-0.1	118.4	0.0

.....EXECUTION COMPLETED

1

APPENDIX T

Model Inputs For Projection

APPENDIX T. DES ALLEMANDS MODEL INPUTS FOR PROJECTION

Table T.1. Projection Inputs for Hydraulics (Data Type 9).

Parameter name or description	Reach(es)	Value used in model	Data Source / Comment
Velocity coefficient, a	1	0.000455	Same as calibration
	2	0.000553	
	3	0.000650	
	4	0.000985	
	5	0.001780	
	6	0.001470	
	7	0.001250	
	8	0.001250	
	9	0.001380	
	10	0.001540	
	11	0.003680	
Velocity exponent, b	1 – 11	1	
Depth coefficient, c	1 – 2	1.52	
	3	1.84	
	4 – 5	2.16	
	6	2.62	
	7 – 8	3.08	
	9	2.79	
	10 – 11	2.5	
Depth exponent, d	1 – 11	0	
Depth constant, e	1 – 11	0	

Table T.2. Projection Inputs for Initial Conditions (Data Type 11).

Parameter name or description	Reach(es)	Value used in model	Data Source / Comment
Temperature, °C	1 – 11	30.8	90th percentile daily water temperature for the months of interest
Salinity, ppt	1 – 3	0.29	Same as calibration
	4 – 6	0.28	
	7 – 10	0.27	
	11	0.28	
DO, mg/L	1 – 11	6.71	90 percent of dissolved oxygen saturation at the 90 percentile seasonal temperature
Ammonia N, mg/L	1 – 5	0.14	Same as calibration
	6	0.23	
	7	0.32	
	8	0.38	
	9 – 11	0.43	
NO ₃ + NO ₂ N, mg/L	1 – 11	0.05	
Phosphorus, mg/L	1 – 5	0.17	
	6	0.17	
	7	0.17	
	8	0.15	
	9 – 11	0.12	
Chlorophyll, ug/L	1 – 5	35	
	6	34	
	7	33	
	8	32	
	9 – 11	31	

Table T.3. Projection Inputs for Kinetic Coefficients (Data Types 12 and 13).

Parameter name or description	Reach(es)	Value used in model	Data Source / Comment
Reaeration option	1 – 11	3	Same as calibration
K _L (surface transfer coefficient)	1 – 11	0.93 m/day	Based on long term average wind speed for August (calculations are included in Appendix V)
CBOD _U decay rate	1 – 11	0.14/day	
Organic N decay rate	1 – 11	0.02/day	
Ammonia N decay rate	1 – 11	0.01/day	Same as adjusted calibration.

Table T.4. Projection Inputs for NPS Loads (Data Types 12, 13 and 19).

Parameter name or description	Reach	Value used in model	Data Source / Comment
Sediment oxygen demand, g/m ² /day	1	0.35	
	2 – 7	0.40	
	8	0.45	
	9	0.40	
	10	0.35	
	11	0.30	
Benthic ammonia, g/m ² /day	1 – 2	0.010	
	3	0.020	
	4	0.030	
	5	0.045	
	6 – 8	0.050	
	9	0.055	
	10	0.060	
	11	0.065	
Benthic phosphorus, g/m ² /day	1	0.010	Reduced by 75% from adjusted calibration
	2	0.009	
	3	0.008	
	4	0.005	
	5 – 7	0.004	
	8	0.003	
	9 – 11	0.001	
CBOD _U mass loads, kg/day	1	600	
	2	450	
	3	300	
	4	75.0	
	5 – 7	15.0	
	8 – 10	37.5	
	11	15.0	
Organic N mass loads, kg/day	1- 11	0	

Table T.5. Projection Inputs for Headwater (Data Types 20, 21, and 22).

Name of inflow	Parameter name	Value used in model	Data Source / Comment
Headwater Des Allemands	Flow Rate	26.8 m ³ /sec	1/3 of average tidal flow for Bayou des Allemands calculated from LDEQ field data.
	Temperature	30.8 C	90th percentile daily water temperature for the months of interest
	Specific conductivity	427 : mhos	Same as calibration
	DO	6.71 mg/L	90 percent of dissolved oxygen saturation at the 90 th percentile seasonal temperature
	CBOD _u	3.79 mg/L	Same as calibration.
	NBOD _u	1.58 mg/L	
	Ammonia	0.12 mg/L	
	NO ₂ + NO ₃	0.05 mg/L	
	Phosphorus	0.12 mg/L	
	Chlorophyll	51 ug/L	

Table T.6. Projection Inputs for Wasteload (Data Types 24, 25, and 26).

Name of inflow	Parameter name	Value used in model	Data Source / Comment
Providence Canal	Flow Rate	0.00 m ³ /sec	Assumed zero for critical low flow conditions.
Colliers Fisheries	Flow Rate	0.00053	20% increase of existing flow (see section 7.4)
	Temperature	30.8 C	Same as calibration
	Specific conductivity	503 μ mhos	
	DO	2.0 mg/L	
	CBOD _u	69.0 mg/L	
	Organic N	5.0 mg/L	
	Ammonia	10.0 mg/L	
	NO ₂ + NO ₃	10.0 mg/L	
	Phosphorus	5.0 mg/L	
	Chlorophyll	0 ug/L	

Table T.7. Projection Inputs for Lower Boundary Conditions (Data Type 27).

Parameter name	Value used in model	Data Source / Comment
Temperature	31.5 C	Same as calibration
Salinity	0.275 ppt	
Specific Conductivity	493 : mhos	
DO	5.16 mg/L	
CBOD _u	3.79 mg/L	
NBOD _u	1.27 mg/L	
Ammonia N	0.43 mg/L	
NO ₂ + NO ₃	0.05 mg/L	
Phosphorus	0.12 mg/L	
Chlorophyll	31 ug/L	